

**BEFORE THE NEW YORK STATE PUBLIC SERVICE COMMISSION**

**Case 24-T-0446**

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the Public Service Law, to Construct, Operate, and Maintain the Propel NY Energy Project	<b>Case 24-T-0446</b>
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**FORMAL COMMENTS IN OPPOSITION TO THE JOINT PROPOSAL  
REGARDING ELECTROMAGNETIC FIELDS (EMF), HUMAN HEALTH,  
AND VULNERABLE POPULATIONS**

Submitted by:

Karen Yanelli, Party to the proceeding in Case 24-T-0446

This document is submitted in opposition to approval of the Joint Proposal in its current form. It requests that the Commission and Administrative Law Judges require additional EMF analysis, sensitive-receptor review, precautionary mitigation, and public health focused conditions before any Certificate of Environmental Compatibility and Public Need is issued.

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## I. Preliminary Statement

I respectfully submit this formal opposition to the Joint Proposal in Case 24-T-0446, concerning the Propel NY Energy Project. This opposition is directed specifically to the Joint Proposal's failure to adequately address electromagnetic fields (EMF), long-term human exposure, and vulnerable populations along the proposed route.

This opposition is based on a strong and appropriate point being, where scientific uncertainty exists and where exposure-reduction measures may be feasible, the Commission must require a complete record before finding that adverse impacts have been avoided or minimized to the extent practicable.

The Joint Proposal repeatedly claims that it protects public health and safety. Yet the record summarized in the Joint Proposal does not provide a meaningful human health framework for EMF exposure. It contains no comprehensive sensitive receptor inventory, no school property analysis, no daycare or playground property analysis, no analysis of cumulative long-term exposure to children and medically vulnerable populations, and no explanation for why precautionary measures are appropriate for fish, birds, bats, shellfish, parklands, and water quality but not for people living and learning beside the route.

The issue before the Commission and the Administrative Law Judges is not whether the Applicants can satisfy a numerical EMF standard. The issue is whether the record supports the finding that the applicant avoids or minimizes significant adverse environmental impacts to the extent practicable, considering available technology, alternatives, and the public interest. On the present record, it fails to do so.

## II. Executive Summary

The Joint Proposal should not be approved in its current form because it does not provide a comparable level of analysis, mitigation, or precautions for human exposure to EMF as it provides for ecological and construction related impacts. The Joint Proposal pays detailed attention to wildlife, marine resources, fisheries, water quality, vegetation, and commercial fishing interests to name a few. Human exposure to EMF is treated as an engineering compliance demonstration rather than an environmental and public health issue requiring careful review.

The following points warrant particular attention:

- The Project includes approximately 89.6 miles of new underground transmission lines, including approximately 78.7 miles at 345 kV and approximately 10.9 miles at 138 kV, routed through Suffolk, Nassau, Queens, Bronx, and Westchester Counties. The sheer size, voltage, route length, and population density of the affected communities make careful EMF review essential.

- The Joint Proposal states that the applicant provides safeguards to avoid or minimize significant adverse environmental impacts and that changes from the original plan were made to minimize impacts on the environment, public health and safety, residents, businesses, and mariners. Despite those claims, the Joint Proposal Summary identifies only one limited EMF related commitment. This being that EMF measurements will follow decades old engineering standards that are known to be just that. These standards have no relationship with public health and safety.
- The Joint Proposal expressly acknowledges that a Segment 5 route refinement involving Glen Head Road, Glen Cove Avenue, and Kissam Lane was made to respond to a request for reduced magnetic field impacts along Glen Head Road. That statement is an admission that magnetic-field exposure is a legitimate planning concern and that mitigation is technically feasible.
- The Joint Proposal provides species specific and resource specific protections for Atlantic Sturgeon, Shortnose Sturgeon, Northern Long-eared Bat, Tricolored Bat, nesting shorebirds, Bald Eagles, Winter Flounder, Hard Clams, fisheries resources, parklands, and other environmental resources, but it provides absolutely no comparable protections for children and other vulnerable human beings.
- Article VII requires the Commission to determine the nature of the probable environmental impact and whether the facility avoids or minimizes significant adverse environmental impact to the extent practicable. Compliance with a numerical EMF engineering standard alone does not answer that statutory question.
- Governmental bodies outside New York have adopted precautionary EMF policies or guidance, particularly in school and child-sensitive settings. California Department of Education guidance expressly acknowledges scientific uncertainty, lack of a state or national EMF exposure standard, and continued reliance on prudent avoidance. According to the National Institute for governmental public Health and the Environment (RIVM), the Netherlands governmental public health authority, upon their review they have found multiple countries have adopted precautionary policies intended to reduce EMF near homes, schools, childcare facilities, hospitals, playgrounds, and other sensitive locations.
- The International Agency for Research on Cancer (IARC) has classified extremely low-frequency magnetic fields as possibly carcinogenic to humans, Group 2B. That classification does not prove harm, but it does confirm that EMF is not a concern that may be dismissed without meaningful review.

For these reasons, the Commission should reject or modify the Joint Proposal unless additional conditions are imposed requiring a sensitive receptor inventory, projected magnetic-field levels at those locations, evaluation of additional route and engineering alternatives, and implementation of feasible exposure reduction measures.

### III. Procedural Background and Project Overview

On July 31, 2024, New York Transco LLC and the New York Power Authority applied to the New York State Public Service Commission for a Certificate of Environmental Compatibility and Public Need under Article VII of the Public Service Law. The Application was deemed in compliance with Public Service Law Section 122 as of February 5, 2025.

The Joint Proposal Summary describes the Project as approximately 89.6 miles of new underground transmission lines, including approximately 78.7 miles at 345 kV and approximately 10.9 miles at 138 kV, with direct interconnection to nine existing and/or new substations in Suffolk, Nassau, Queens, Bronx, and Westchester Counties. It includes submarine cable, terrestrial cable, new substations, and a transition station.

The Project is not a short isolated facility. It is a major, multi-county transmission project that will traverse densely populated communities and existing roadway rights of way. The public health question therefore cannot be treated as an abstract engineering issue. It must be evaluated in relation to schools, playgrounds, homes, parks, daycare centers, athletic fields, medical facilities, and other locations where people, including children, spend substantial time over many years.

The Joint Proposal was reached after extensive settlement negotiations. The Summary states that the Joint Proposal resolves all issues among the Signatory Parties. However, resolution among Signatory Parties does not eliminate the Commission's independent duty to determine whether the statutory findings required by Article VII are supported by a complete and adequate record.

### IV. Summary of the Joint Proposal

The Joint Proposal Summary contains several statements that are directly relevant to this opposition. Those statements should be read together because they reveal the central defect in the proposal, which is the Joint Proposal claims broad public health protection. How can this be truth if it does not provide a comparable EMF health framework.

The Summary states that changes from the application were designed to minimize impacts to the environment, public health and safety, residents, businesses, and commercial and recreational mariners. This language is important because the Joint Proposal itself places public health and safety within the scope of its claimed protective purpose.

However, the public health language is not matched by a meaningful EMF health analysis. There is no section identifying vulnerable humans, no specific analysis of schools or daycare centers, no long-term exposure review, and no explanation for the absence of precautionary mitigation for communities where chronic exposure may occur.

The Summary identifies extensive protections for Atlantic Sturgeon, Shortnose Sturgeon, Northern Long-eared Bat, Tricolored Bat, nesting shorebirds, Bald Eagles, Winter Flounder, Hard Clams, water quality, fisheries, parklands, vegetation, and marine users. These protections

include seasonal restrictions, avoidance measures, monitoring, conservation plans, compensation mechanisms, burial depths, and construction window limitations.

Those protections are appropriate. They also show that the Applicants and Signatory Parties know how to design detailed protective frameworks when they choose to do so. The absence of a comparable framework for children, school populations, and medically vulnerable residents is therefore not a technical impossibility.

The Summary's principal EMF language is a commitment to complete “as-built modeling and terrestrial transect measurements” to confirm the Project's compliance with governing electric and magnetic field standards. That commitment is not a health protective framework. It is a post-construction compliance check.

A post-construction measurement taken after the route and design have effectively been approved does not answer whether avoidable exposure could have been reduced through routing, depth, phasing, cable configuration, separation, shielding, or other design decisions before construction. It also does not answer whether sensitive receptors require additional attention.

#### V. Applicable Article VII Standard

Article VII requires the Commission to make findings before granting a certificate. Public Service Law Section 126 provides that the Commission may grant a certificate only if it finds, among other things, the nature of the probable environmental impact and that the facility avoids or minimizes to the extent practicable any significant adverse environmental impact, considering available technology, alternatives, economics, and other pertinent considerations.

The statute therefore does not ask only whether the Applicants satisfy an existing numerical standard. It asks whether impacts have been avoided or minimized to the extent practicable. It requires a sufficient record to evaluate the nature of the impact, the practicability of alternatives, and the reasonableness of mitigation.

The Applicants should not be allowed to convert Article VII's minimization standard into a simple assertion of compliance. Compliance may be relevant, but it is not the end of the analysis where feasible avoidance and minimization measures may exist.

#### VI. Core Defect: Public Health Is Asserted but EMF Is Not Meaningfully Evaluated

The Joint Proposal invokes public health and safety yet does not meaningfully evaluate one of the public's most significant health concerns which is long-term EMF exposure from high-voltage transmission infrastructure near residential and child sensitive locations.

A meaningful EMF health review would include the following:

- A map and inventory of all schools, daycare centers, playgrounds, athletic fields, parks used by children, hospitals, nursing homes, senior facilities, and dense residential areas within defined distances of the route.
- Pre-construction modeled magnetic-field levels at those sensitive receptors under realistic and peak operating conditions.
- Comparison of alternative routing, depth, cable spacing, and shielding options specifically intended to reduce magnetic field exposure.
- Discussion of cumulative exposure in areas where residents may already be exposed to existing electric infrastructure.
- A transparent monitoring plan that provides results to affected communities in understandable language.

#### VII. The Joint Proposal Applies Precautionary Protection to Wildlife and Natural Resources but Not to People

Throughout the Joint Proposal, the Signatory Parties repeatedly acknowledge scientific or ecological uncertainty and respond by adopting precautionary measures designed to avoid potential harm before such harm occurs. The proposal includes seasonal restrictions, monitoring requirements, conservation planning, construction window limits, water quality protection, fisheries compensation, and species-specific protections. These measures were not adopted because harm has been proven with certainty. They are adopted because uncertainty exists and because avoiding potential harm is preferable to reacting after damage occurs.

The same principle should apply to human health. Where scientific uncertainty exists regarding potential long-term health effects, particularly for children and other vulnerable populations, the Commission should apply the same precautionary reasoning that it accepts elsewhere in the Joint Proposal. A consistent application of precautionary principles requires that potential human health impacts be evaluated with the same level of care and diligence afforded to ecological resources.

Children attending school near the route should not receive less explicit protection than fish, shellfish, and wildlife. The point is not to diminish environmental protection. The point is that human health should receive at least comparable analytical rigor.

#### VIII. Failure to Evaluate and notify Sensitive Receptors and Vulnerable Populations

The Joint Proposal contains no meaningful public health analysis of vulnerable populations. It does not provide a comprehensive evaluation of:

- Schoolchildren
- Daycare populations
- Hospital patients
- Nursing home residents

- Children and students regularly use playgrounds, athletic fields, parks, and schoolyards near the route

A project of this scale should not be approved without a sensitive receptor inventory.

The Commission should also require disclosure of modeled field levels under average expected load, reasonably foreseeable peak load, emergency loading conditions, and future expansion or load growth scenarios. A single generalized compliance model is insufficient to address community concerns.

## IX. California School-Siting Policy Shows that Prudent Avoidance Is a Recognized Governmental Response

California provides an important example of a government applying prudent avoidance in school settings. The California Department of Education guidance identifies setback distances for overhead transmission lines close to proposed school sites which are 100 feet for 50-133 kV lines, 150 feet for 220-230 kV lines, and 350 feet for 500-550 kV lines, as measured from the edge of easement. It identifies setback interpretations for existing underground transmission lines as well. The California Department of Education's Power Line Setback Exemption Guidance is under California Code of Regulations, Title 5, Section 14010(c).

The CDE guidance is relevant because it expressly states that it was developed in consultation with international experts, state public health and regulatory agencies, utilities, school districts, consultants, and private citizens. It further states that CDE's past endorsement of prudent avoidance continues to form the basis of the guidance.

Most importantly, the CDE guidance acknowledges the very issue present here which is scientific uncertainty. It states that the guidance recognizes scientific uncertainty regarding the health effects of EMFs, the lack of any state or nationally established standard for EMF exposure, and reliance on no- or low-cost measures to reduce fields from new power transmission lines.

The Commission should therefore require the Applicants to address why comparable prudent avoidance analysis is not appropriate for schools and child-sensitive locations along the Propel NY route. It is not enough to say New York has an EMF standard. California's guidance itself recognized that the absence of a definitive exposure standard does not eliminate the need for prudent avoidance.

## X. European and International Precautionary Policies Show that Additional Protections Are Reasonable

International practice also supports additional review. A 2018 report by the National Institute for Public Health and the Environment of the Netherlands (RIVM), titled Comparison of International Policies on Electromagnetic Fields, reviewed policies on power-frequency and radiofrequency fields across multiple countries.

The RIVM report explains that in some European Union member states, a precautionary policy has been advised by government or voluntarily agreed to by the electricity sector to limit exposure of the general population to power frequency magnetic fields. It states that such policies are motivated by epidemiological evidence for a possibly increased risk of childhood leukemia in children living near overhead power lines or by the more general principle of keeping fields as low as reasonably possible in light of scientific uncertainty.

The RIVM report identifies several examples that are directly relevant to this proceeding:

- France: a ministerial recommendation advises avoiding, as far as possible, creation of new hospitals, maternity wards, and childcare facilities near power lines, cables, transformers, and bus bars where children would be exposed to magnetic fields above specified levels.
- Denmark: the Danish Health Authority recommended that new homes or children's institutions not be built close to power lines, and that new power lines not be built close to homes or children's institutions, with practical distance determinations left to case-specific judgment.
- Finland: the radiation safety authority has recommended avoiding construction of permanent residences and premises meant for children in areas where magnetic flux density continuously exceeds approximately 0.4 microtesla (which is the European unit for EMF).
- The Netherlands: a ministerial recommendation advises local authorities and grid companies to avoid, as far as reasonably possible, creating new situations involving long-term stays of children in areas around overhead high-voltage power lines with annually averaged magnetic flux density greater than 0.4 microtesla.
- Slovenia: stricter limits apply near homes, schools, kindergartens, hospitals, playgrounds, parks, recreational areas, and similar sensitive places for new or modified sources.
- Switzerland: a stricter precautionary limit applies at places of sensitive use such as apartments, schools, and children's playgrounds for new high-voltage power lines, significant modifications, transformers, and substations, unless the owner can show that technically possible and economically acceptable measures have been taken.

These examples are powerful evidence that precautionary EMF policies are not extreme, irrational, or technically impossible. They are mainstream governmental responses to uncertainty where vulnerable populations and long-term exposure are involved.

## XI. WHO/IARC Classification Warrants Additional Review, Not Dismissal

In 2002, the International Agency for Research on Cancer (IARC), the specialized cancer research agency of the World Health Organization, evaluated static and extremely low-frequency electric and magnetic fields. IARC concluded that extremely low-frequency magnetic fields were possibly carcinogenic to humans, Group 2B. IARC also noted that ELF magnetic-field exposures result from proximity to electric power transmission lines, household wiring, and electric appliances.

This classification establishes an internationally recognized scientific body has determined that ELF magnetic fields warrant concern sufficient for a Group 2B classification.

That is enough to require careful Article VII review. A Group 2B classification is the type of scientific uncertainty that should trigger prudent avoidance and exposure minimization where feasible, especially for children and sensitive receptors.

The Joint Proposal's minimal EMF treatment is inconsistent with the seriousness of that classification and with the precautionary approaches adopted elsewhere. Article VII does not require certainty of harm before minimization measures may be imposed.

## XII. Deficiencies in the Record

The record, as reflected in the Joint Proposal Summary, is deficient in at least the following respects:

### A. No Comprehensive Sensitive-Receptor Inventory

The Joint Proposal does not identify all schools, daycare centers, playgrounds, athletic fields, hospitals, nursing homes, senior facilities, and residences located near the route. Without such an inventory, the commission cannot determine whether vulnerable populations have been adequately considered.

### B. No Location Specific EMF Modeling for Vulnerable Receptors

The Joint Proposal does not present receptor-specific magnetic-field modeling at sensitive locations under average, peak, emergency, and future loading conditions. Generalized modeling and post-construction compliance checks are insufficient.

### C. No Review of Precautionary Policies Adopted Elsewhere

The Joint Proposal does not meaningfully address California school sitting guidance, European precautionary policies, or international approaches to child-sensitive exposure reduction.

### D. No Long-Term Community Reporting Requirement

The Joint Proposal does not require transparent public reporting of EMF measurements in a format understandable to residents, parents, school districts, and local governments.

## XIII. Conclusion

The Joint Proposal demonstrates attention to the protection of wildlife, fisheries, water quality, coastal resources, parklands, marine users, and environmental resources. Those protections are appropriate. But the same level of care has not been applied to potential human exposure to EMF.

The Commission should not approve a Joint Proposal that treats human health as a post-construction engineering compliance issue while treating ecological uncertainty as deserving detailed precautionary protections. The protection of children, residents, school communities, and medically vulnerable individuals should not be placed behind fish, shellfish, birds, bats, and construction logistics.

The Applicants have already admitted, through the Glen Head route modification, that magnetic-field mitigation is feasible and appropriate. The Commission should require that same protective analysis throughout the route before making the findings required by Article VII.

For these reasons, the Joint Proposal should be rejected or substantially modified to include additional EMF analysis, sensitive receptor protection, public health review, and enforceable mitigation conditions.

Respectfully submitted,

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Case 24-T-0446

## APPENDIX

Joint Proposal Summary, Case 24-T-0446, Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, pages 1-5. Key cited points include the Project description, claimed safeguards, public-health language, listed environmental protections, Glen Head magnetic-field route refinement, EMF compliance-measurement commitment, and Article VII findings.

New York Public Service Law Section 126, The Decision. The statute requires findings concerning the nature of probable environmental impact and whether the facility avoids or minimizes significant adverse environmental impact to the extent practicable, considering available technology, alternatives, economics, and other pertinent considerations.

California Department of Education, Power Line Setback Exemption Guidance, May 2006. The guidance discusses school-site transmission-line setbacks, prudent avoidance, scientific uncertainty, lack of a state or national EMF exposure standard, and no/low-cost field-reduction measures.

International Agency for Research on Cancer, IARC Monographs, Volume 80, Non-ionizing Radiation, Part 1: Static and Extremely Low-frequency Electric and Magnetic Fields (2002). IARC evaluated extremely low-frequency magnetic fields as possibly carcinogenic to humans, Group 2B.

R. Stam, National Institute for Public Health and the Environment (RIVM), Comparison of International Policies on Electromagnetic Fields (Power Frequency and Radiofrequency Fields), 2018. The report summarizes international EMF policies and precautionary approaches in multiple jurisdictions, including policies concerning homes, schools, childcare facilities, hospitals, playgrounds, and places of sensitive use.

New York Department of Public Service, Article VII Major Electric and Gas Transmission Facilities overview, describing Article VII as requiring review of the need for and environmental impact of siting, design, construction, and operation of major transmission facilities.